

PATENT

REMARKS

The Office Action dated April 21, 2006 has been received and considered. Reconsideration of the outstanding rejection in the present application is respectfully requested based on the following remarks.

Obviousness Rejection of Claims 1-6 and 10-18

At page 5 of the Office Action, claims 1-6 and 10-18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Parker (U.S. Patent No. 5,528,704) in view of Greggain (U.S. Patent No. 5,594,676). This rejection is respectfully traversed.

Parker and Greggain fail to disclose or suggest a control word comprising third variable indicating a number of right shifts which, when applied to a second variable, indicates a number of phases used in a scaling cycle as recited by claim 1

Independent claim 1 recites the features of “providing a control word comprising a first variable indicating a number of input pixels in a scaling cycle, a second variable indicating a number of output pixels in a scaling cycle, and a third variable indicating a number of right shifts which, when applied to the second variable, indicates a number of phases used in the scaling cycle.” The Office Action asserts that these features are disclosed by Parker as “control data (structure) within a conversion controller (See Fig. 2) controlling the resolution conversion including the input resolution, the output resolution, and the number of phases or the number of coefficients for the filter in FIG. 2.” *Office Action*, p. 2. More specifically, the Office asserts that the input resolution and the output resolution of Parker meet the “first variable” and “second variable” features of claim 1 as it allegedly is more specific. *Id.* With respect to the “third variable” feature, the Office asserts that

[t]he number of phases of Parker in column 8 meets the claim limitation of “a third variable.” It is well known that the number of shifts S may be determined from the output resolution M and the number of phases P, e.g., S=M<<P and the number of phases may be determined from the output resolution M and the number of shifts M<<S, as shown in Parker column 8 that the number of phases 9 is determined from the output resolution 400 by right shifting. Therefore, Parker strongly suggest the claim limitation [of the third variable].

Office Action, p. 2 (emphasis added).

PATENT

As a first issue, nowhere in Parker or Greggain is it disclosed or suggested that "the number of shifts S may be determined from the output resolution M and the number of phases P." Thus, the Office sets forth an "Official Notice"-type rejection by asserting that it "is well-known that the number of shifts S may be determined from the output resolution M and the number of phases P." As this "Official Notice" was not part of the rejection of claim 1 in the previous Office Action, the Office's adjustment to its rationale for rejecting claim 1 in the Office Action to include this *de facto* "Official Notice" represents new grounds of rejection. As this new grounds of rejection was not necessitated by any amendments to claim 1, the finality of the Office Action is premature. Applicant therefore respectfully requests that (1) the Office provide a reference in support of the "Official Notice" and (2) the finality of the Office Action be withdrawn so that the Applicant can more fully consider any references provided by the Office.

As a second issue, there is no support for the Office's position that Parker suggests the above-identified features of claim 1. Regardless of whether the Office interprets the claim term "variable" to mean a fixed constant, a field, a value, or the like, Parker does not disclose or even suggest providing a control word (or "control data" as construed by the Office) that includes a third variable (or field or constant or value) that, when applied to a second variable (or field or constant or value) indicating a number of output pixels in a scaling cycle, indicates a number of phases used in the scaling cycle. Contrary to the assertions of the Office, column 8 of Parker, as cited at page 2 of the Office Action, fails to disclose or suggest "that the number of phases 9 is determined from the output resolution 400 by right shifting." In fact, column 8 of Parker fails to disclose right shifting any value for any reason. Also contrary to the assertions of the Office, Figure 2 of Parker fails to disclose or suggest that a control word (or "control data) includes a third variable (or field or constant or value) that is or can be applied to a second variable (or field or constant or value) so as to indicate a number of output pixels in a scaling cycle. Further, as noted in last two Responses, the Office expressly acknowledges that "Parker is silent" with respect to the claimed features of a control word and implicitly acknowledges that Greggain also is silent with respect to the claimed features of a control word because the Office Action makes no mention that a control word is taught by Greggain. Accordingly, Parker and Greggain fail to disclose or suggest the features of a control word as recited by claim 1. Thus, Parker and Greggain, individually or in combination, fail to disclose or suggest these claim features.

PATENT

As a third issue, even if it is assumed, *arguendo*, that it is well-known that “the number of shifts S may be determined from the output resolution M and the number of phases P” as asserted by the Office Action, the Office fails to establish how one of ordinary skill in the art would be motivated to utilize this information to modify the teachings of Parker and Greggain so as to provide the “control word” feature recited by claim 1. To wit, the Office fails to establish how the systems of Parker or Greggain would benefit from the use of such a control word, or that such a control word would aid the systems of Parker and Greggain in achieving their stated goals. As similarly noted in the last two Responses, the Office’s assertion that one of ordinary skill “would have found it *obvious* to incorporate adaptive filtering of Greggain into Parker’s method” (*Office Action*, p. 5) is conclusory and has no bearing on whether the combination of the teachings of Parker and Greggain is proper. Rather, the Office must show that there is *motivation* to combine the cited references either in the references themselves or in the knowledge of one of ordinary skill in the art. As such, the Office fails to establish that either Parker or Greggain provide any motivation for their combination. Thus, the Office’s proposal for the combination of the teachings of Parker and Greggain is merely a hindsight reconstruction in view of the teachings of the present application.

Parker and Greggain fail to disclose or suggest the particular combination of features recited by claims 10 and 16-18 and fails to establish a prima facie case of obviousness with respect to claims 10 and 16-18

With respect to independent claims 10 and 16-18, the Office Action rejects these claims as “subject to the same rational of rejection as set forth in claim 1” and provides no further explanation for the rejection of claims 10 and 16-18 in view of the proposed combination of Parker and Greggain. *Office Action*, p. 11. However, as noted in the previous Response, claims 10 and 16-18 recite features not recited by claim 1 or any of its dependent claims. To illustrate, claim 10 recites the features of incrementing a current phase location within a scaling cycle by a first variable to obtain a first adjusted scaling cycle; decrementing, in response to the first adjusted value being greater than a second variable, the first adjusted value by one or more times the second variable indicative of a number of output pixels in the scaling cycle to obtain a second adjusted value less than the second variable; and determining an index value to access a coefficient set by right shifting the second adjusted value a predetermined amount. Independent claims 16-18 recite features similar to those recited by claim 10. Thus, because the Office

PATENT

Action fails to address how the additional recited features of claims 10 and 16-18 are disclosed or suggested by either Parker or Greggain in any manner, the Office Action necessarily fails to establish a *prima facie* case of obviousness under 35 U.S.C. Section 103(a).

Moreover, the Office acknowledges that "Parker is silent to 'incrementing a current phase location to obtain a first adjusted value' and 'decrementing the first adjusted value to obtain a second adjusted value' and 'determining an index value to access a coefficient set.'" *See Office Action mailed March 1, 2005*, p. 6. As noted in the Response dated August 1, 2005, the claimed features identified by the Office for which Parker provides no disclosure represent most of the recited features of claim 10 and the similar features of claims 16-18. The present Office Action does not assert that these features are disclosed or suggested by Greggain, nor in fact are these features taught by Greggain.

Further, as discussed above, neither Parker nor Greggain disclose or suggest coefficient sets or right shifting in any manner, so Parker and Greggain necessarily fail to disclose or suggest, individually or in combination the feature of determining an index value to access a coefficient set by right shifting the second adjusted value a predetermined amount as recited by claim 10, the feature of means for determining an index value to access a coefficient set by right shifting the second adjusted value a predetermined amount as recited by claim 16, the feature of instructions to determine an index value to access a coefficient set by right shifting the second adjusted value a predetermined amount as recited by claim 17, or the feature of operations to determine an index value to access a coefficient set by right shifting the second adjusted value a predetermined amount as recited by claim 18.

The obviousness rejection of claims 1-18 should be withdrawn

As established above, Parker and Greggain fail to disclose or suggest, individually or in combination, at least one feature recited by each of independent claims 1, 7, 10 and 16-18. Accordingly, the proposed combination of Parker and Greggain fails to disclose or suggest each and every feature recited by claims 1, 7, 10 and 16-18, as well as the additional features of claims 2-6, 8, 9 and 11-15 at least by virtue of their dependency from one of claims 1, 7 or 10. Accordingly, it is respectfully submitted that the obviousness rejection of claims 1-18 is

PATENT

improper at this time and reconsideration and withdrawal of this rejection therefore is respectfully requested.

Conclusion

The Applicant respectfully submits that the present application is in condition for allowance, and an early indication of the same is courteously solicited. The Examiner is respectfully requested to contact the undersigned by telephone at the below listed telephone number in order to expedite resolution of any issues and to expedite passage of the present application to issue, if any comments, questions, or suggestions arise in connection with the present application.

The Commissioner is hereby authorized to charge any fees that may be required, or credit any overpayment, to Deposit Account Number 50-1835.

Respectfully submitted,



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Date